

WHAT IS CLAIMED IS:

1. A device for separating a cornea of an eye, comprising:
 - a head portion adapted to reciprocate; and
 - a wire attached to said head portion and adapted to separate the cornea to expose first and second surfaces.
2. A device according to claim 1, wherein
 - said wire is adapted to separate said cornea into said first and second surfaces to form a flap in the cornea of the eye.
3. A device according to claim 1, wherein
 - said head portion has a first arm and a second arm; and
 - said wire extends between said first arm and said second arm
4. A device according to claim 3, wherein
 - said first and second arms extend substantially parallel.
5. A device according to claim 1, wherein
 - a positioning member adapted to couple to said head portion and is adapted to position said wire at an appropriate position relative to the surface of the cornea.
6. A device according to claim 5, wherein
 - said positioning member is affixed to said head portion.
7. A device according to claim 1, further comprising
 - a guard member coupled to said head portion and adapted to protect the cornea from undesired separation.
8. A device according to claim 7, wherein
 - said guard has first and second arms.

9. A device according to claim 6, wherein

said positioning member has an upper portion and a lower portion, said wire adapted to be positioned between said upper and lower portions.

10. A device according to claim 9, wherein

said positioning member has a first slot and a second slot on opposite sides thereof, said first and second slots being adapted to receive said first and second arms of said guard member, respectively.

11. A device according to claim 9, wherein

said lower surface has an opening therein adapted to allow a portion of the cornea to pass therethrough and contact said wire.

12. A device according to claim 11, wherein

said upper portion has a transparent portion that substantially overlies said opening.

13. A device according to claim 1, further comprising

an electric motor adapted to reciprocate said head portion

14. A device according to claim 1, further comprising

a blank adapted to overlie said first and second surfaces.

15. A device according to claim 1, further comprising

a blade adapted to form an arcuate groove in the surface of the cornea of the eye.

16. A device according to claim 15, wherein

said wire is adapted to separate the cornea the along said groove.

17. A device according to claim 15, wherein

said blade adapted to form said arcuate groove so that said groove extends about in an arc of about 350°.

18. A device for separating a cornea of an eye, comprising:

first member having a head portion;

a reciprocating member coupled to said head portion;

a first arm and a second arm coupled to said reciprocating member ; and

a wire extending between said first and second arm, and adapted to separate the cornea to expose first and second surfaces.

19. A device according to claim 17, further comprising

a second member adapted to position said wire relative to the cornea.

20. A device according to claim 19, wherein

said head portion has an attachment portion coupled thereto and adapted to attach said first member to said second member.

21. A device according to claim 20, wherein

said second member has a first portion with a first slot and said second portion with a second slot.

22. A device according to claim 21, wherein

said attachment portion includes a first arm adapted to fit in said first slot and a second arm adapted to fit in said second slot.

23. A device according to claim 19, wherein
said second member has an upper portion and a lower portion, said wire adapted to be positioned between said upper and lower portions.
24. A device according to claim 23, wherein
said lower surface has an opening therein adapted to allow a portion of the cornea to pass therethrough and contact said wire.
25. A device according to claim 24, wherein
said upper portion has a transparent portion that substantially overlies said opening.
26. A device according to claim 19, wherein
said second member is affixed to said first member.
27. A device according to claim 18, further comprising
an electric motor adapted to reciprocate said head portion
28. A device according to claim 18, further comprising
a blank adapted to overlie said first and second surfaces.
29. A device according to claim 18, further comprising
a cutting device adapted to form a groove in the surface of the cornea of the eye.
30. A device according to claim 29, wherein
said cutting device includes a substantially circular surface; and
a blade extends from a portion of the periphery of said substantially circular surface, substantially perpendicular from said substantially circular surface.

31. A device according to claim 30, wherein
said blade extends about 350° about said periphery.